

B6;129S-Slc17a8^{tm1.1(cre)Hze} /JStock No: **028534** | Slc17a8-IRES2-Cre-D (or Vglut3-IRES2-Cre-D) Targeted Mutation

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disrupting endogenous vesicular glutamate transporter 3 expression. These mice may be used to generate conditional mutations for studying gain-or-loss of function and/or fate mapping related to glutamatergic synaptic vesicle trafficking.

Donating Investigator

Hongkui Zeng, Allen Institute for Brain Science

[R E A D M O R E +](#)**GENETIC OVERVIEW****Genetic Background****Generation**[N3+pN1F9](#)
(2020-12-07 00:00:00)***Slc17a8^{tm1.1(cre)Hze}*****Allele Type**

Targeted (Recombinase-expressing, No functional change)

Gene Symbol*Slc17a8***Gene Name**

solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 8

[V I E W G E N E T I C S](#)**RESEARCH APPLICATIONS**

Research Tools

Cancer Research

Neurobiology Research

[V I E W A L L R E S E A R C H A P P L I C A T I O N S](#)

BASE PRICE

Starting at:

\$278.00 Domestic price for female 4-week

356.51 Domestic price for breeder pair

V I E W P R I C E L I S T

Details

Detailed Description

The *Slc17a8* gene encodes the vesicular glutamate transporter 3 (Vglut3) protein that mediates synaptic transmission by transporting the neurotransmitter, glutamate, into secretory vesicles.

The *Slc17a8*-IRES2-Cre-D knockin mutation has an IRES2 sequence and a Cre recombinase gene inserted downstream of the translational STOP codon of the *Slc17a8* gene. As such, *Slc17a8*-IRES2-Cre-D mice have both endogenous gene and Cre recombinase expression directed to Vglut3-expressing cells by the endogenous promoter/enhancer elements of the *Slc17a8* locus. When *Slc17a8*-IRES2-Cre-D mice are bred with mice containing *loxP*-flanked sequences, Cre-mediated recombination will result in deletion of the floxed sequences in Vglut3-expressing cells in the offspring. The donating investigator reports Cre recombinase expression and activity largely recapitulates the endogenous *Slc17a8* gene's adult expression pattern in areas such as cortex, cerebral nuclei, thalamus and midbrain. In addition, the Cre reporter expression pattern also appears to be somewhat broader than the endogenous pattern. The donating investigator did not examine *cre* expression in tissues other than brain. Heterozygous mice are viable and fertile with no reported gross physical or behavioral abnormalities. To date (December 2015), it has not been attempted to make this strain homozygous.

Development

Expression Data

Control Suggestions

Genetics

Slc17a8^{tm1.1(cre)Hze}

⊖ Disease/Phenotype

+ Disease Terms

+ Research Areas By Phenotype

+ Mammalian Phenotype Terms by Genotype

+ References

⊖ Technical Support

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

Separated PCR:[Slc17a8](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred together, to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. [000664](#)). To date (December 2015), it has not been attempted to make this strain homozygous.

[Additional Breeding and Husbandry Support](#)

Mating System

Wild-type x Heterozygote

Heterozygote x Wild-type

Citation

When using the Slc17a8-IRES2-Cre-D (or Vglut3-IRES2-Cre-D) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028534 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX12 \(Maximum\)](#)

⊖ Pricing & Availability



Live mice available in varying quantities. Ask Customer Service for details.

Available

Domestic Internatic

Pricing effective for USA, Canada and Mexico shipping destinations

LIVE MOUSE			
AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
4 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
5 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
5 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
6 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
6 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
7 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
7 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
8 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
8 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
9 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
9 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
10 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
10 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
11 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
11 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51

	SEX	Genotype	Price
12 weeks	Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
	Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}	\$278.00
12 weeks	Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51
	Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}	\$78.51

BREEDER PAIR			PRICE
SEX	GENOTYPE		
Female	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}		\$356.51
Male	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}		
Female	Wild-type for Slc17a8 ^{tm1.1(cre)Hze}		\$356.51
Male	Heterozygous for Slc17a8 ^{tm1.1(cre)Hze}		

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LICENSING INFORMATION

☰ Related Strains

- All
- By Allele
- By Gene
- By Collection




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